



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

644.4120

Job Sheet 181920



Part No: 644.4120

Job Qty: 20 ea

DAS
21
9-00

Part Name: Spacer, Crosstube



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 8/13/18

Job Tracking No:

Due Date: 8/31/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG 649.4100 Rev F2 IPP REV:A NEW ISSUE 16.12.06 JLM VERIFIED BVY:DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Start up Operation	20 Ea	8/31/18	8/31/18	0.00	0.00	Start Up Machining-4		
110	Lathe Conv	20 pcs	8/31/18	8/31/18	0.00	20.00	Lathe Conv-1		
120	QC	20 pcs	8/31/18	8/31/18	0.00	0.00	QC2 Machining-1		
130	QC	20 pcs	8/31/18	8/31/18	0.00	0.00	QC8 Machining-2		
140	Outsource	20 pcs	8/31/18	8/31/18			ATG001-VC	8	
150	Packaging	20 pcs	8/31/18	8/31/18	0.00	0.00	Packaging2		
160	QC	20 pcs	8/31/18	8/31/18	0.00	0.00	QC6		
170	SprayPaint	20 pcs	8/31/18	8/31/18	0.00	2.00	Spray Paint		
180	QC	20 pcs	8/31/18	8/31/18	0.00	0.00	QC14		
190	Packaging	20 pcs	8/31/18	8/31/18	0.00	0.00	Packaging3-1		
200	QC21-SA	20 Ea	8/31/18	8/31/18	0.00	0.00	QC21		

Part Op 110 - 1-TURN AS PER DWG DWG REV: 2- deburr and break all sharp edges

Descriptions: 140 - 1-ISSUE P/O TO ATG: 2-Anodize Black -MPP-172 Section 2.1 -Hard Anodize

Type 3 Class 2 3-Certification of Conformity is required

170 - PRIME AS PER DWG AND NOTE 4 BATCH: PAINT AS PER DWG AND NOTE 4

BATCH:

190 - ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
M6061T6R0.625	6061-T6 Round Bar .625"	5.9000 ft (.295 ea)	100-Start up Operation	S 113 021

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Start up Operation	M6061T6R0.625	6	129	0

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Quality ☐ Other ☐																																																																																	
Date : _____		Step #: _____		RB (QSI042) Approval																																																																															
Description Work Order Deviation				Completed By _____ Hand / Supervisor Approval Verification _____ / QA Coordinator Approval _____																																																																															
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="6" style="text-align: left; padding: 5px;">Root Cause</th> </tr> <tr> <td style="width: 15%;">Environment ☐</td> <td style="width: 15%;">No Re-verification ☐</td> <td style="width: 15%;">Pressure/Forced ☐</td> <td style="width: 15%;">Tempe ☐</td> <td style="width: 15%;">Positioned Wrong ☐</td> <td style="width: 15%;"></td> </tr> <tr> <td>Design ☐</td> <td>Operator ☐</td> <td>Bending ☐</td> <td>Set-up ☐</td> <td>Outside Dimensions ☐</td> <td></td> </tr> <tr> <td>Doc/Data ☐</td> <td>Offset/Setup ☐</td> <td>Centre Not Concentric ☐</td> <td>BOM/R ☐</td> <td>Over/Under tolerance ☐</td> <td></td> </tr> <tr> <td>Equip/Tooling ☐</td> <td>Supplier ☐</td> <td>Cracks ☐</td> <td>Broken, ☐</td> <td>Part Incorrect ☐</td> <td></td> </tr> <tr> <td>Handling/Pre ☐</td> <td>Training ☐</td> <td>Crimp/Kink/Ripple/Wave ☐</td> <td>Inspecti ☐</td> <td>Part Lost/Missing ☐</td> <td></td> </tr> <tr> <td>Material ☐</td> <td>Use for Testing ☐</td> <td>Cuffs ☐</td> <td>Contam ☐</td> <td>Part Moved ☐</td> <td></td> </tr> <tr> <td>Internal Transport ☐</td> <td>Poor Information ☐</td> <td>Crushing ☐</td> <td>Counter ☐</td> <td>Missing ☐</td> <td></td> </tr> <tr> <td>Tribal Knowledge ☐</td> <td>Rushing ☐</td> <td>Heat Treat ☐</td> <td>Cut Too ☐</td> <td>h ☐</td> <td></td> </tr> <tr> <td>LOA ☐</td> <td>Product Improvement ☐</td> <td>Wave/Twist in Tube ☐</td> <td>Instructi ☐</td> <td>Mislead ☐</td> <td></td> </tr> <tr> <td>Substation ☐</td> <td>Process Improvement ☐</td> <td>Marks/Chatter ☐</td> <td>Drill Hol ☐</td> <td>Turning Sequence ☐</td> <td></td> </tr> <tr> <td>Past Expiry Date ☐</td> <td>Manufacturing Process ☐</td> <td colspan="4"></td> </tr> <tr> <td>Misidentified ☐</td> <td>Past Due ☐</td> <td colspan="4">OTHER : ☐</td> </tr> </table>						Root Cause						Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Tempe ☐	Positioned Wrong ☐		Design ☐	Operator ☐	Bending ☐	Set-up ☐	Outside Dimensions ☐		Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/R ☐	Over/Under tolerance ☐		Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken, ☐	Part Incorrect ☐		Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspecti ☐	Part Lost/Missing ☐		Material ☐	Use for Testing ☐	Cuffs ☐	Contam ☐	Part Moved ☐		Internal Transport ☐	Poor Information ☐	Crushing ☐	Counter ☐	Missing ☐		Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too ☐	h ☐		LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructi ☐	Mislead ☐		Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Hol ☐	Turning Sequence ☐		Past Expiry Date ☐	Manufacturing Process ☐					Misidentified ☐	Past Due ☐	OTHER : ☐			
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Date: 09/24/18

Uart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com



Container No: S113032
 Job No: 181920
 Part: 644.4120
 Serial No/Batch: S113032
 Revision: F2
 Inspector:
 Exp Date:
 Instructions:



DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER :					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER PO041133

Supplier: ATG001-VC
A.T.G. Industries Inc
731 INDUSTRIELLE ROAD
ROCKLAND
ON
K4K 1T2 Canada
Phone: 613-446-4544
Fax: 613-446-4556

Attention: Lalande, Marc-Andre

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: PO041133
PO Date: 9/25/18
Due Date: 10/18/18
**Purchase Order
Revision:**
Revision Date:
Ship-To Contact: Tsimiklis, ChrisoulaPhone:

Via: Ground
Pymt Terms: Net 30

Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	178993	RBE350A94-3700-C-07	Top -Issue P/O to ATG: PO -ANODIZE COLOR RED, PER IAW MIL-A-8625 TYPE-2 CLASS-2, Water sealant As Per Dwg RBE350A94-3700-C-07 Rev 6 -Certificate of Conformity is required	Firmed	-	10/18/18	40 pcs	0 pcs	40 pcs	\$4.55/pcs	\$182.00
2	181383	647.1610	Wiper Deflector Fwd Issue P/O to ATG : 1- Hard Anodize, Color Black and Prime as per Dwg, 647.1600	Firmed	-	10/18/18	40 pcs	0 pcs	40 pcs	\$11.50/pcs	\$460.00
3	182779	D5575-1	Deflector, Lower Cable Cutter : Various STC's Issue P/O to ATG : Black Anodize & Prime as per Dwg. D5575-1 Certification of Conformity is required.	Firmed	-	10/18/18	2 pcs	0 pcs	2 pcs	\$9.30/pcs	\$18.60



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PURCHASE ORDER **PO041133**

Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
4	181917	644.4112	Spacer 1-ISSUE P/O TO ATG: _____ 2-Anodize Black -MPP-172 Section 2.1 -Hard Anodize IAW Mil-A- 8625 Type 3 Class 2 3-Certification of Conformity is required	Firmed	-	10/18/18	30 pcs	0 pcs	30 pcs	\$5.75/pcs	\$172.50
5	181392	647.7612	Breakaway Tip Issue P/O to ATG : _____ Hard Anodize, Color Black and Prime as Per Dwg 647.7600	Firmed	-	10/18/18	50 pcs	0 pcs	50 pcs	\$11.50/pcs	\$575.00
6	182775	D5576-1	Deflector, Upper, Cable Cutter : Various STC's Issue P/O to ATG : _____ Black Anodize & Prime as per Dwg. D5576 Certification of Conformity is required.	Firmed	-	10/18/18	2 pcs	0 pcs	2 pcs	\$10.30/pcs	\$20.60
7	181920	644.4120	Spacer, Crosstube 1-ISSUE P/O TO ATG: _____ 2-Anodize Black -MPP-172 Section 2.1 -Hard Anodize IAW Mil-A- 8625 Type 3 Class 2 3-Certification of Conformity is required	Firmed	-	10/18/18	30 pcs	0 pcs	30 pcs	\$5.75/pcs	\$172.50
Grand Total:											\$1,601.20

DAS
68
9-89



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER
PO041133

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 9/26/18 2:16 PM dart.tsimiklis.chrisoula



A.T.G. Industries Inc.
731 Industrielle Street
Rockland, ON K4K 1T2
Canada

Ph: (613) 446-4544

Fax: (613) 446-4556

Pack List

Number: 916174

Date: 04-Oct-18

To

Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ship To

Chrisoula Tsimiklis
Dart Aerospace Ltd
1270 Aberdeen St
Hawkesbury, ON K6A 1K7

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
		ATG Delivery	
Quantity	Description		
	Please reference this document's Pack List number on all correspondences regarding this shipment. If you have any questions, please contact us.		
30 ea	Part: 644.4112 ✓ Spacer Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Job: 23813 PO: PO041133 ✓ Line: 4	Rev: 1	
30 ea	Part: 644.4120 ✓ Spacer, Crosstube Hard Black Anodize per MIL-A-8625F, Type III, Class 2, .0005-.0045" (.5 - 4.5mils). Job: 23816 PO: PO041133 ✓ Line: 7	Rev: F	
CERTIFICATE OF CONFORMANCE A.T.G Industries Inc. certifies that all items in this shipment conform to the requirements. Date: <u>4/10/18</u> Certified Signature: _____ Receiver Signature: _____ A.T.G Industries Inc. is AS9100 Registered and Nadcap Chemical Processing Accredited. Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt.			

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Made in Canada.

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APICAL INDUSTRIES ANY REPRODUCTION IN PART OR WHOLE WITHOUT
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A

B

C

D

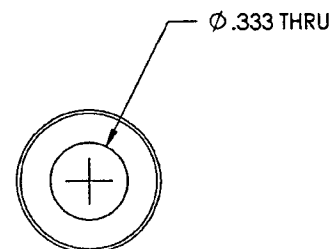
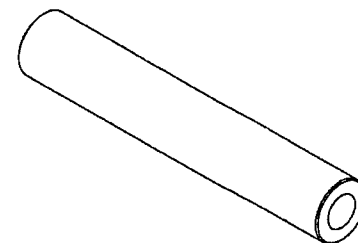
.02 X 45.00°

3.54 $\triangle 7$

$\phi .59$

$\phi .62$

644.4120
SPACER, CROSS-TUBE



$\phi .333$ THRU

ORIGINAL DATE 08-01-05	APICAL INDUSTRIES		
DRAWN BY D. PARROTT	2608 TEMPLE HEIGHTS DR. OCEANSIDE, CA. 92056-3512 (760)724-5300		
DRAWING APPROVAL S. JOSEPH 08-29-05	PIVOT STEP ASSY		
CONTRACT NO.	REV. CAGE CODE B 07M16	DWG. NO. 644.4100	REV. F
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: 2 PLACE DECIMALS $\pm .005$ 3 PLACE DECIMALS $\pm .0010$ ANGLES $\pm .5^\circ$	SCALE NONE SHEET 12 OF 16		